

APPLICANT(S): GAZIT, Hillel  
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### AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently Amended) A method for multiplexing data in a packet network system with a plurality of data queues, said method comprising the steps:

a) initialize a first output queue section by making all address pointers in that section point to their own addresses;

b) initialize said system by setting an input queue equal to a first input stream and initialize a next section of its output queue by making all address pointers in that output queue point to their own addresses;

c) select the next input queue;

d) read a next packet from said next input queue and select a location for it in said output queue;

e) determine whether said selected location in said output queue is occupied by examining its address pointer;

f) if said selected location is occupied, ~~go to the address pointed to by the address pointer for said selected location~~ select in its stead a new location pointed to by the address pointer for said selected location and repeat until the lastly selected location is not occupied;

g) ~~if said location pointed to by the address pointer is not occupied,~~ store the pointer to ~~a second input stream~~ said next packet in the lastly said selected location;

h) modify the address pointers for all output queue addresses ~~accessed by steps d and f~~ locations examined in step f to point to the ~~next~~ first unoccupied location in the output queue that is beyond the location accessed in step g;

i) go to step c and repeat until the last input queue in said plurality of data queues is multiplexed:

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2. (Original) The method of claim 1 wherein the packet network is an Internet Protocol network.
3. (Original) The method of claim 2 wherein the data is MPEG-2 transport stream data.
4. (Original) The method of claim 2 wherein the data is digital uncompressed stream data.
5. (Original) The method of claim 2 wherein the data is digital compressed stream data.
6. (Currently Amended) A method for multiplexing data in a packet network system with a plurality of data queues, said method comprising the steps:

a) initialize a first output queue section by making all address pointers in that section point to their own addresses;

b) initialize said system by setting an input queue equal to a first input stream and initialize a next section of its output queue by making all address pointers in that output queue point to their own addresses;

c) select the next input queue;

d) read a next packet from said next input queue and select a location for it in said output queue;

e) determine whether said selected location in said output queue is occupied by examining its address pointer;

f) if said selected location is occupied, ~~go to the address pointed to by the address pointer for said selected location~~ select in its stead a new location pointed to by the address pointer for said selected location and repeat until the lastly selected location is not occupied;

g) ~~if said location pointed to by the address pointer is not occupied,~~ store the pointer to ~~a second input stream~~ said next packet in the lastly said selected location;

h) modify the address pointers for all output queue ~~addresses accessed by steps d and f~~ locations examined in step f to point to the next first unoccupied location in the output queue that is beyond the location accessed in step g;

i) determining whether this is the last input queue;

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j) if this is the last input queue, send out the output queue;

k) if this is not the last input queue, determine whether this is the last packet in the selected input queue;

l) if this is the last packet in the selected input queue, go to step c; and

m) if this is not the last packet in the selected input queue, go to step d.

7. (Original) The method of claim 6 wherein the packet network is an Internet Protocol network.

8. (Original) The method of claim 7 wherein the data is MPEG-2 transport stream data.

9. (Original) The method of claim 7 wherein the data is digital uncompressed stream data.

10. (Original) The method of claim 7 wherein the data is digital compressed stream data.